



[4910-13]

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

[Docket No: FAA-2013-0485]

#### Availability of Draft Advisory Circular (AC) 90-106A and AC 20-167A

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of Availability for Comment

**SUMMARY:** This notice announces the availability of draft Advisory Circular (AC) 90-106A, *Enhanced Flight Vision Systems* and draft AC 20-167A, *Airworthiness Approval of Enhanced Vision System, Synthetic Vision System, Combined Vision System, and Enhanced Flight Vision System Equipment* documents that were developed by the FAA.

These documents are available for public review, download, and comment.

**DATES:** Send comments on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** Send comments identified by docket number FAA-2013-0485 using any of the following methods:

- **Federal eRulemaking Portal:** Go to <http://www.regulations.gov> and follow the online instructions for sending your comments electronically.
- **Mail:** Send comments to Docket Operations, M-30; U.S. Department of Transportation (DOT), 1200 New Jersey Avenue, SE., Room W12-140, West Building Ground Floor, Washington, DC 20590-0001.
- **Hand Delivery or Courier:** Take comments to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE.,

Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- Fax: Fax comments to Docket Operations at (202) 493-2251.

*Privacy*: The FAA will post all comments it receives, without change, to <http://www.regulations.gov>, including any personal information the commenter provides. Using the search function of the docket web site, anyone can find and read the electronic form of all comments received into any FAA dockets, including the name of the individual sending the comment (or signing the comment for an association, business, labor union, etc.). DOT's complete Privacy Act Statement can be found in the Federal Register published on April 11, 2000 (65 FR 19477-19478), as well as at <http://DocketsInfo.dot.gov>.

*Docket*: Background documents or comments received may be read at <http://www.regulations.gov> at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** For technical questions concerning draft AC 90-106A, contact Terry King, Flight Technologies and Procedures Division, AFS-400, Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591; telephone (202) 385-4586; e-mail [Terry.King@faa.gov](mailto:Terry.King@faa.gov). For technical questions concerning draft AC 20-167A, contact Trent Prange, Aircraft Engineering Division, AIR-100, Aircraft Certification Service, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC

20591; telephone (202) 385-4866; e-mail [Trent.Prange@faa.gov](mailto:Trent.Prange@faa.gov). For legal questions concerning this action contact Paul G. Greer, Office of the Chief Counsel, Regulations Division, AGC-200, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591; telephone (202) 267-3073; e-mail [Paul.G.Greer@faa.gov](mailto:Paul.G.Greer@faa.gov).

## **SUPPLEMENTARY INFORMATION**

On June 11, 2013, the FAA published a Notice of Proposed Rulemaking (NPRM) in the Federal Register titled *Revisions to Operational Requirements for the Use of Enhanced Flight Vision Systems (EFVS) and to Pilot Compartment View Requirements for Vision Systems* (78 FR 34935-34958)(Docket No.: FAA-2013-0485; Notice No. 1209). AC 90-106A, *Enhanced Flight Vision Systems*, and AC 20-167A, *Airworthiness Approval of Enhanced Vision System, Synthetic Vision System, Combined Vision System, and Enhanced Flight Vision System Equipment*, have been revised to incorporate the operational and airworthiness proposals contained in the NPRM.

AC 90-106A provides information about the operating rules pertaining to EFVS operations and explains how to obtain authorization to conduct EFVS operations. AC 20-167A provides guidance on airworthiness approvals of EFVS, Enhanced Vision System (EVS), Synthetic Vision System (SVS), and Combined Vision System (CVS) equipment installation.

AC 90-106A is for persons operating aircraft under Title 14 of the Code of Federal Regulations (14 CFR) part 91, 121, 125, 129, or 135 who seek approval to use an EFVS in lieu of natural vision to either descend below decision altitude/decision height (DA/DH) or minimum descent altitude (MDA) to 100 feet height above touchdown zone elevation (HAT) from a straight-in Instrument Approach Procedure (IAP), or descend

below DA/DH to touchdown and rollout from a straight-in precision IAP or a straight-in IAP with approved (published) vertical guidance.

AC 90-106A applies to all EFVS operations that are conducted to 100 feet HAT and all EFVS operations that would be conducted to touchdown and rollout under proposed §§ 91.176, 121.651, 125.381, 129, and 135.225. AC 90-106A also applies to the proposed EFVS provisions of §§ 121.613, 121.615, 125.361, 125.363, and 135.219 for dispatch, flight release, and takeoff under IFR when the reported or forecast visibility at the destination airport is below authorized minimums. In addition, AC 90-106A applies to the proposed EFVS provisions of §§ 121.651, 125.325, 125.381, and 135.225 for initiating or continuing an approach when the destination airport weather is below authorized visibility minimums for the runway of intended landing. This AC also contains information about the proposed requirements for pilot training under § 61.31 and the proposed recent flight experience and proficiency requirements under § 61.57.

AC 90-106A provides information on the regulatory background of EFVS operations, the levels of EFVS operations which can be currently approved, the concept of operation associated with each level of EFVS operation, and how to obtain operational approval to conduct EFVS operations. AC 90-106A also provides information on the regulatory requirements for conducting EFVS operations, including operating, equipment, training, recent flight experience, proficiency, dispatch and flight release, and maintenance requirements.

Public comments on draft AC 90-106A should be submitted on the comment form titled *Comment Form for Advisory Circular (AC) 90-106A, Enhanced Flight Vision Systems*. An electronic copy of this form can be downloaded from the docket.

AC 20-167A is for airplane and rotorcraft manufacturers, modifiers, and type certification engineers seeking certification or installation guidance for their visual display system. Sections 23.773, 25.773 27.773 and 29.773 address vision systems using a transparent display surface located in the pilot's outside view, such as a head-up-display, head-mounted display, or other equivalent display. Such "vision systems" include any EVS, EFVS, SVS, or CVS.

AC 20-167A applies to all applicants for a new type certificate (TC), an amended type certificate (ATC), or a supplemental type certificate (STC) who install vision systems and equipment. The method of compliance described in AC 20-167A can be used to obtain a TC, STC, or ATC for an airplane or rotorcraft equipped with EVS, EFVS, SVS, or CVS equipment.

AC 20-167A describes system performance, provides methods, procedures, and practices acceptable to the FAA for complying with regulations, and addresses specific installation guidance for vision systems on an airplane or on rotorcraft. This AC also provides EFVS safety standards and sample flight test considerations for EFVS operations conducted to 100 feet HAT and for EFVS operations conducted to touchdown and rollout.

Public comments on the available drafts should be submitted on the forms provided. Electronic copies of these forms can be downloaded from the docket: FAA-2013-0485.

Both ACs provide methods, procedures, and practices acceptable to the FAA for complying with regulations. They are a means, but not the only means, of obtaining

approval to conduct EFVS operations and to install and obtain airworthiness approval for vision systems. These ACs do not alter regulatory requirements.

Issued in Washington, DC on August 7, 2013.

Lirio Liu

Director

Office of Rulemaking

[FR Doc. 2013-19478 Filed 08/12/2013 at 8:45 am; Publication Date: 08/13/2013]